

Retractable and Coretractable Modules

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Abstract

© 2016, Springer Science+Business Media New York. In this paper, we study mod-retractable modules, CSL-modules, fully Kasch modules, and their interrelations. Right fully Kasch rings are described. It is proved that for a module M of finite length, the following conditions are equivalent. (1) In the category $\sigma(M)$, every module is retractable. (2) In the category $\sigma(M)$, every module is coretractable. (3) M is a CSL-module. (4) $\text{Ext}^1_R(S_1, S_2) = 0$ for any two simple nonisomorphic modules $S_1, S_2 \in \sigma(M)$. (5) M is a fully Kasch module.

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